crucial™
The Memory Experts℠

RealSSD™ C300 Technical Specification

Designed with high-speed synchronous MLC NAND, advanced controller technology, optimized NAND management, and the new SATA 6Gb/s interface, these drives dramatically improve data transfers for bandwidth-demanding applications like audio and video.

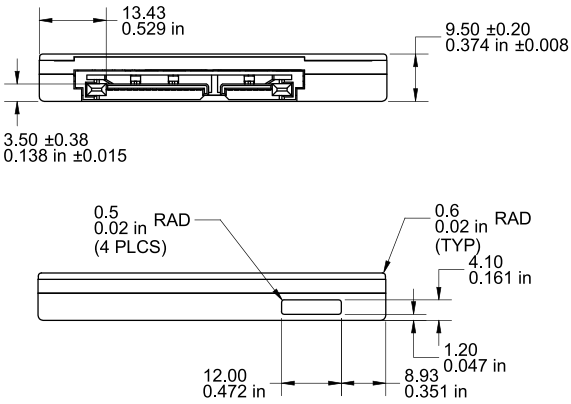
And our expertise in NAND design and development makes us best equipped to optimize NAND components to specifically address the performance needs of solid-state storage. These innovations change the rules of storage and deliver breakthrough speed that transforms your computing experience.

	Product	CTFDDAC128MAG-1G1	CTFDDAC256MAG-1G1
Features	Capacity (Unformatted)	128GB	256GB
	NAND	Micron® MLC	Micron® MLC
	Controller	Marvell	Marvell
	Firmware	Field Upgradeable	Field Upgradeable
	RAID Support	Yes	Yes
	Interface	SATA	SATA
	Transfer Rate	6Gb/sec (compatible 3Gb/sec)	6Gb/sec (compatible 3Gb/sec)
	Power Supply	5 V	5 V
	Certifications	FCC, CE, RoHS, UL	FCC, CE, RoHS, UL
	Command Set	ATA-8 w/ TRIM	ATA-8 w/ TRIM
	Monitoring	Self-monitoring, analysis, and reporting technology (SMART) command set	Self-monitoring, analysis, and reporting technology (SMART) command set
Performance	Average Access Time	< .1 ms	< .1 ms
	Sequential Read (up to)[1]	355MB/sec (SATA 6Gb/s) 265MB/sec (SATA 3Gb/s)	355MB/sec (SATA 6Gb/s) 265MB/sec (SATA 3Gb/s)
	Sequential Write (up to)	140MB/sec (SATA 6Gb/s) 140MB/sec (SATA 3Gb/s)	215MB/sec (SATA 6Gb/s) 215MB/sec (SATA 3Gb/s)
	Random 4k READ[2]	50,000 IOPS	60,000 IOPS
	Random 4k WRITE	30,000 IOPS	45,000 IOPS
Physical	Form Factor	2.5-inch	2.5-inch
	Dimensions (L x W x H)	100.45 x 69.85 x 9.50 mm	100.45 x 69.85 x 9.50 mm
	Weight	74g	75g
Environmental	Active Power	1.7W READ, 3.1W WRITE	2.1W READ, 4.3W WRITE
	Idle Power	0.092W idle	0.094W idle
	Operating Temperature	0°C to +70°C	0°C to +70°C
	Non-Operating Temperature	-55°C to 95°C	-55°C to 95°C
	Shock Resistance	1500G / 1.0ms	1500G / 1.0ms
	Vibration Resistance	2-500Hz at 3.1G	2-500Hz at 3.1G
Reliability	MTBF	TBD hours	TBD hours
	Data Reliability	Built-in EDC/ECC	Built-in EDC/ECC
	Warranty	Limited 3 Year Warranty	Limited 3 Year Warranty
	Read Endurance	Unlimited	Unlimited

[1]Sequential READ/WRITE numbers are measured using IOMETER, using 128k sequential transfers with queue depth of 32 and write cache enabled.

[2]Typical I/O performance numbers are measured using IOMETER, using 4k random transfers with queue depth of 32 and write cache enabled.

Pin Configurations



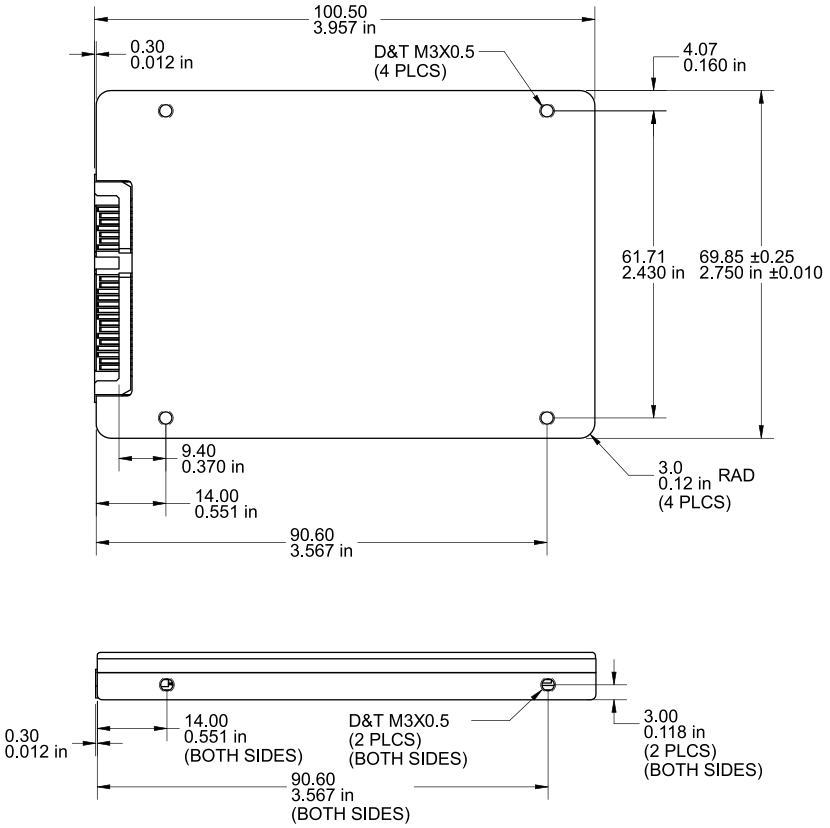
Signal Segment Pin Assignments

SIGNAL NAME	TYPE	DESCRIPTION
S1	GND	Ground
S2	A	Differential signal pair A and A#
S3	A#	
S4	GND	Ground
S5	B#	Differential signal pair B and B#
S6	B	
S7	GND	Ground

Power Segment Pin Assignments

SIGNAL NAME	TYPE	DESCRIPTION
P1	V33	No connect
P2	V33	No connect
P3	V33	No connect
P4	GND	Ground
P5	GND	Ground
P6	GND	Ground
P7	V5	5V power, pre-charge
P8	V5	5V power
P9	V5	5V power
P10	GND	Ground
P11	DAS	Device activity signal
P12	GND	Ground
P13	V12	No connect
P14	V12	No connect
P15	V12	No connect

Mechanical Drawings



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